



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-4474; Directorate Identifier 2015-NE-34-AD]

RIN 2120-AA64

Airworthiness Directives; Pratt & Whitney Division Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Pratt & Whitney Division (PW) PW4000-94 inch and PW4000-100 inch model turbofan engines. This proposed AD was prompted by a report of a crack find in the high-pressure compressor (HPC) disk. This proposed AD would require performing an ultrasonic inspection (USI) or an eddy current inspection (ECI) of the HPC 10th stage disk. We are proposing this AD to prevent failure of the HPC 10th stage disk, an uncontained disk release, damage to the engine, and damage to the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Pratt & Whitney Division, 400 Main St., East Hartford, CT 06108; phone: (860) 565-8770; fax: (860) 565-4503. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call (781) 238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-4474; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Katheryn Malatek, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7747; fax: 781-238-7199; email: katheryn.malatek@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this NPRM. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2015-4474; Directorate Identifier 2015-NE-34-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. We will consider all

comments received by the closing date and may amend this NPRM because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this NPRM.

Discussion

We propose to adopt a new AD for certain PW PW4000-94 inch turbofan engines with HPC 10th stage disk, part number (P/N) 51H710 or 53H976-06, installed and certain PW4000-100 inch turbofan engines with HPC 10th stage disk, P/N 53H976-06, installed. This proposed AD was prompted by a report of a crack find in the HPC 10th stage disk. The root cause of the crack was a manual polishing procedure, previously used during manufacture, that caused surface scratches on the disk. This proposed AD would require a USI or ECI of the HPC 10th stage disk. We are proposing this AD to prevent failure of the HPC 10th stage disk, which could lead to an uncontained disk release, damage to the engine, and damage to the airplane.

Related Service Information under 1 CFR Part 51

We reviewed PW Alert Service Bulletin (ASB) No. PW4G-100-A72-255, dated August 31, 2015 and PW ASB No. PW4ENG A72-833, dated August 20, 2015. The ASBs provide lists of affected HPC disks and describe procedures for USI and ECI of the HPC 10th stage disk. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this NPRM.

FAA's Determination

We are proposing this NPRM because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This NPRM would require performing a USI or ECI of the HPC 10th stage disk.

Costs of Compliance

We estimate that this proposed AD affects 763 engines installed on airplanes of U.S. registry. We also estimate that it would take about 12 hours per engine to do the inspection. The average labor rate is \$85 per hour. Based on these figures, we estimate the cost of this proposed AD on U.S. operators to be \$778,260.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct

effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Pratt & Whitney Division: Docket No. FAA-2015-4474; Directorate Identifier 2015-NE-34-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(b) Affected ADs

None.

(c) Applicability

(1) This AD applies to all Pratt & Whitney Division (PW) PW4050, PW4052, PW4056, PW4060, PW4060A, PW4060C, PW4062, PW4062A, PW4152, PW4156, PW4156A, PW4158, PW4160, PW4460, PW4462, and PW4650 turbofan engines, including models with a “-3” suffix, with one of the following installed:

(i) High-pressure compressor (HPC) 10th stage disk, part number (P/N) 51H710, with a serial number (S/N) listed in Table 1 of PW Alert Service Bulletin (ASB) No. PW4ENG A72-833, dated August 20, 2015; or

(ii) HPC 10th stage disk, P/N 53H976-06, with an S/N listed in Table 2 of PW ASB No. PW4ENG A72-833, dated August 20, 2015.

(2) This AD also applies to all PW PW4164, PW4168, PW4168A, PW4164C, PW4164C/B, PW4170, PW4168A-1D, PW4168-1D, PW4164-1D, PW4164C-1D, and PW4164C/B-1D turbofan engines with an HPC 10th stage disk, P/N 53H976-06, with an S/N listed Table 1 of PW ASB No. PW4G-100-A72-255, dated August 31, 2015, installed.

(d) Unsafe Condition

This AD was prompted by a report of a crack find in the HPC 10th stage disk. We are issuing this AD to prevent failure of the HPC 10th stage disk, an uncontained disk release, damage to the engine, and damage to the airplane.

(e) Compliance

Comply with this AD within the compliance times specified, unless already done.

(1) Whenever the high-pressure turbine (HPT) or low-pressure turbine (LPT) is removed from the engine, perform an ultrasonic inspection (USI) of the HPC 10th stage disk for cracks. Remove from service any HPC 10th stage disk that fails inspection and replace with a part eligible for installation.

(2) Whenever the HPC front drum rotor disk assembly is removed from the engine, perform an eddy current inspection (ECI) of the HPC 10th stage disk for cracks. Remove from service any HPC 10th stage disk that fails inspection and replace with a part eligible for installation. A USI as required by paragraph (e)(1) of this AD is not required if an ECI is performed.

(f) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, FAA, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request. You may email your request to: ANE-AD-AMOC@faa.gov.

(g) Related Information

(1) For more information about this AD, contact Katheryn Malatek, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7747; fax: 781-238-7199; email: katheryn.malatek@faa.gov.

(2) PW ASB No. PW4G-100-A72-255, dated August 31, 2015 and PW ASB No. PW4ENG A72-833, dated August 20, 2015, can be obtained from PW using the contact information in paragraph (g)(3) of this AD.

(3) For service information identified in this AD, contact Pratt & Whitney Division, 400 Main St., East Hartford, CT 06108; phone: (860) 565-8770; fax: (860) 565-4503.

(4) You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call (781) 238-7125.

Issued in Burlington, Massachusetts, on December 3, 2015.

Colleen M. D'Alessandro,
Directorate Manager, Engine & Propeller Directorate,
Aircraft Certification Service.
[FR Doc. 2015-30948 Filed: 12/8/2015 8:45 am; Publication Date: 12/9/2015]